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MAKINO TERUHIRO**(54) THIN SOFT MAGNETIC ALLOY FILM****(57) Abstract:**

PURPOSE: To provide a thin soft magnetic alloy film having high saturated magnetic flux density and thermal stability.

CONSTITUTION: The thin soft magnetic alloy film is formed with a composition expressed by composition formula $\text{Fe}_a\text{Co}_b\text{M}_c\text{O}_d$ (wherein, M is at least one kind

of elements or a mixture of Zr and Hf, Fe is iron, Co is cobalt, O is oxygen, relation of a composition ratio a, b, c, d is 132a286, 102b260, 12c212, 32d225 and $a+b+c+d=100$). The soft magnetic thin film, which has high saturated magnetic flux density, corrosion resistance and thermal stability and is effectively used for a MIG head, is provided.

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